

Request for Proposal (RFP)

Northern Tier Interoperability Project (NTIP)

Digital Microwave System

October 2005

Glacier County 512 East Main Cutbank, MT 59427-3016

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I. GENERAL INFORMATION

The Disaster and Emergency Services Division (DES), within the Montana Department of Military Affairs (DMA), has the responsibility for coordination of the Montana Homeland Security Task Force, a task force appointed by the Governor. Montana's homeland security objective is to protect citizens against the threat of terrorism by detecting, preparing for, preventing, responding to and recovering from terrorist threats or attacks. The mission of the Homeland Security Task Force is to serve the interests of the citizens of Montana by facilitating clear lines of communication and coordinating a comprehensive statewide plan in preparation for the specific occurrences of terrorism threat or attack. The Governor has appointed DES to serve as State Administration Agency (SAA) for the Department of Homeland Security, Office of Domestic Preparedness (ODP).

On May 26, 2004 Blaine, Daniels, Flathead, Glacier, Hill, Liberty, Lincoln, Phillips, Roosevelt, Sheridan, Toole, and Valley Counties and Blackfeet, Confederated Salish and Kootenai, Fort Belknap, and Fort Peck Indian Nations signed letters of intent to form the Northern Tier Interoperability Consortium (NTIC) to set the basic framework for providing secure communication capability between federal law enforcement agencies and State and local law enforcement agencies. Montana's Northern Tier Interoperability Project (NTIP) was established to provide a consolidated local, state, tribal, and federal radio system for law enforcement purposes. With over 550 miles of border with Canada, Montana law enforcement officials have critical communications interoperability requirements between levels of government and across jurisdictions. The NTIP radio system will provide advanced digital, secure voice and data communications for law enforcement interoperability across this vital border region. It will also improve homeland security by providing the means for military and civil authorities to communicate by radio.

The ultimate objective of the consortium is to develop an interoperable P25 Phase 1 Standards multimode radio communications system based on federal and state communication standards in which federal, state and local public safety and emergency management representatives can operate autonomously and transition seamlessly to communicate effectively in emergency mission roles. Such a system will provide advanced digital, secure voice and data communications for public safety and improve homeland security through provision of the means by which military and civil authorities may communicate. It will also provide for backwards compatibility during its implementation. This system will emphasize flexibility and will include consideration of organizational relationships as well as detailed and prioritized schedules of equipment procurement, training and exercises necessary to fully achieve the overall objective. The primary means of accomplishment will be through one or more performance contracts to be entered into with qualified firms.



The source of funding will be a combination of State and Local Funds withheld at the request of these local jurisdictions from the Office of Domestic Preparedness FY 2004 State Homeland Security Grant Program and Law Enforcement Terrorism Prevention Program, Grant number 2004-GE-T4-0002 and CFDA #94.007.

The County is releasing this Request for Proposal (RFP) to solicit proposals from qualified vendors to acquire a digital microwave system to be designed and implemented within the Northern Tier, and connectivity to the trunked radio Master Control Site in Lewis & Clark County.

The intent of these specifications is to define the quality of the equipment and software capable of delivering the desired performance with high reliability. The successful RFP respondent will be expected to provide hardware, software and installation of the products and services they provide as well as general consultation to provide solutions to changing needs and future expansion.

The Northern Tier Interoperability Project (NTIP) provides many challenges for the design of a law enforcement radio system. The area spans over 550 miles, including the entire Montana-Canadian border. This region includes large expanses of relatively flat ranchland and farmland in the central and east, as well as the extremely mountainous terrain of the continental divide region in the western counties. Although most of the area is sparsely populated, there are several municipalities with significant population density. The Northern Tier Interoperability Project also encompasses four Indian tribal reservations and the Glacier National Park. These areas provide their own challenges due to the legal status of the Indian Nations and the environmental restrictions within the park.

Local Law Enforcement - County Sheriff - City Police

The interoperability Standard for digital radios (P25) with secure communications capability will allow the ability for Local Agencies to talk directly with Federal and Tribal agencies without the worry of being monitored. It will also provide better day-to-day communications security on an individual agency basis. The Digitally Secure RF Backbone will provide access for Federal agencies to contact Local Dispatch when needed. With Secure Communications, sensitive information that otherwise would not be available can be transmitted providing more accurate and quicker information out to field personal. The Mobile Data interfaces allow access to national and local databases for any arrest or warrant information on individuals or vehicles. The mobile data interface can also provide silent dispatch capabilities thus allowing more accurate information to be used on the street where it is needed the most. The Microwave backbone will provide connectivity between all Dispatch Centers and where appropriate Federal Installations. The Microwave backbone can also be used to interface remote Communications Sites to the Dispatch Center providing better communication capabilities.

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Montana Army National Guard

Standardized microwave capability across Montana's highline will establish a portion of the communications redundancy necessary for command and control of Montana Army National Guard armories across the highline. Secure voice communications capabilities will provide interoperability and system survivability and redundancy for National Guard units in services to civilian authorities for homeland security and during times of disaster.

Tribal Law Enforcement

Interoperability between Tribal Law Enforcement and Federal Agencies is extremely important. The Northern Tier Interoperability Communication Project includes Tribal Law Enforcement and meets the same criteria as Local Law Enforcement. The project carries even more weight with Tribal Law Enforcement because of the unique relationship with the FBI, BIA and other Federal Law Enforcement Agencies that have jurisdiction with-in Tribal Boundaries. The Border Hi-line of Montana contains (5) tribal Reservations. The Northern Tier Interoperability Communications Project will provide Tribal Law Enforcement significantly increased secure communications capability with Federal, Local and State Law Enforcement Agencies. The network developed along the border will allow increased sharing of database information between all agencies - Tribal, Federal, State and Local. Mobile Data capability will provide increased information flow to vehicles allowing interface to national and local databases.

Montana Highway Patrol

The project will provide increased communication capability for Montana Highway Patrol. The Mobile Data backbone will provide extended coverage for the Montana Highway Patrol who has a cooperative effort ongoing with (10) counties and cities in the State of Montana for a shared mobile data infrastructure. The Microwave backbone can provide interfaces to remote sites for direct connection back to Central Dispatch. The project will also provide the ability for Montana Highway Patrol to directly communicate with all the tribal and local dispatch centers across the border and provide the bases for sharing of criminal information across jurisdictional boundaries.

Montana Department of Transportation

The project will provide Montana Department of Transportation with backhaul capabilities for future Intelligent Transportation Highway Systems. Interoperability is not just in voice communications but can allow for communication between Law Enforcement Agencies and Department of Transportation for monitoring and alerting the public to dangerous situations. The Mobile Data portion of the system can also be used by various agencies identified through the Department of Transportation to track commercial carriers.

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United States Border Patrol

The Northern Tier Interoperability Project will provide the Border Patrol with secure voice communications with Local, State, and Tribal Law Enforcement Agencies across the Border of Montana. The Project will provide a microwave communications backbone capable of linking the major Border Patrol offices together with the desired ability to pass sensitive information directly to Local, State, and Tribal Law Enforcement Dispatch Centers when appropriate. The microwave backbone can also be used for direct connection of RF Communications Sites providing enhanced communications ability in both voice and Mobile Data. The Mobile Data expansion will provide the opportunity for the Border patrol to utilize an interface into National Databases or direct information flow from Border Patrol to Mobile Computer Vehicular Units in Law Enforcement Vehicles. Mobile Data can provide a fast and efficient means of quickly checking license plates, Names, and mug shots over a wide coverage area.

Future Growth

The intent of the NTIC system is to ultimately allow for expansion to provide support to all public safety responders within the State of Montana. A partial list of future users of the microwave backbone includes EMS, Rural and City Fire, Public Works, Search and Rescue, County Road Department, Hospitals, DNRC, Department of Corrections, Department of Health and Human Services, Bureau of Land Management, United States Forest Service, Federal Bureau of Investigation, Bureau of Indian Affairs. Further, it is envisioned that the digital microwave system will connect all eight consortiums throughout the state.

ORGANIZATION OF RFP

This RFP is organized as follows:

- Section I General Information. The remainder of this section contains basic information concerning this RFP process and a description of the current and desired business and RPS infrastructure.
- Section II Additional Terms and Conditions. This section outlines additional terms and conditions applicable to this RFP.
- Section III Instructions to Bidders. This section of the RFP instructs bidders on the approach used for this procurement and includes key additional terms and conditions surrounding this RFP.
- Section IV Planned Radio System Environment. This section describes the designed environment under which the Radio Communication System will operate.
- Section V Deliverables. This section contains both the requirements of the NTIP and the broader requirements of the statewide system.
- Section VI Proposal Response Format. This section describes the required format of the vendor response to the RFP.



• Section VII — Evaluation of Proposals. This section details information surrounding the evaluation of vendor proposals. This includes information regarding the evaluation process, factors, award and contract negotiations.

SCOPE AND OBJECTIVES OF RFP

The objective of the Northern Tier Interoperability Consortium (NTIC) is to procure a turnkey consortium-wide digital microwave system, utilizing the existing tower locations throughout the NTIC and state of Montana. The vendor is expected to provide a proposal which utilizes the existing tower locations to design a system that provides the required reliability throughout the NTIC.

These specifications may not necessarily list all equipment or software required to assemble a fully operational system that will satisfy the NTIC requirements. It shall be the responsibility of the vendor to verify the completeness of the equipment and the suitability of the equipment to meet the total requirements of the turnkey system. The successful vendor, without claim for additional payment, shall provide any equipment or special installations, not specifically mentioned herein, required by the performance specifications. The vendor shall not be allowed to take advantage of any errors in or omission from the RFP. Full instructions will be given, if such an error or omission is discovered, and called to the attention of the NTIC in a timely manner. It shall be understood that the proposal award will be comprehensive in nature, leading to a completely operational system.

The following procurement goals and objectives have been established:

Procurement Goals

1. Immediate acquisition of a turnkey consortium-wide digital microwave system that meets the needs of the NTIC agencies and partners, including but not limited to:

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- a. Engineering Services
- b. Design
- c. Manufacture
- d. Staging
- e. Installation
- f. Testing and Acceptance



SCHEDULE OF EVENTS

The following schedule of events indicates the dates and times of key events and deadlines associated with this RFP. These dates and times are estimates only and may change based on unforeseen events or circumstances to best meet the needs of the County. Estimated dates are provided to demonstrate the expected procurement timeline and indicate important deadlines for vendor activities. All times are Mountain Standard Times.

ACTIVITY	DATES	TIME
RFP Publication Date	October 14 th , 2005	
Deadline for Final Questions	October 28 th , 2005	5:00 pm
RFP Closing Date (Proposals Due)	November 9 th , 2005	5:00 pm
Bid Opening	November 14 th , 2005	9:00 am
Initial Proposal Evaluations begin	November 15 th , 2005	10:00 am
Announcement of Apparent Successful Bidder	November 23 rd , 2005	9:00 am
Contract Negotiations With Successful Vendor	November 28 th , 2005	
Project Start-up	December 12 th , 2005	

NOTIFICATION OF AWARD

The NTIC via a Letter of Intent will notify successful vendors. The NTIC may also notify selected vendors by telephone, e-mail, or fax and follow up with a letter.

NOTIFICATION OF COMPETITION RESTRICTIONS

These specifications do not include any proprietary items or devices, which might preclude any equipment manufacturer from producing equipment to meet the specifications. All technical specifications are considered to be written within the state-of-the-art technology currently being met by commercially available equipment. The fact that a manufacturer chooses not to produce equipment to meet these specifications will not be considered sufficient cause to adjudge the specifications as restrictive. Any reference to one manufacture's equipment is only for descriptive purposes as it relates to the level, quality, or functions desired and is not restrictive to that manufacture

The vendor must advise the RFP Coordinator if any specification, language, or other requirement inadvertently restricts or limits bidding. Notification must be in writing and must be received by the RFP Coordinator no later than five (5) business days prior to the bid closing date.

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BIDDER QUESTIONS AND INQUIRIES

The RFP Coordinator is the sole point of contact for this procurement. All communications regarding this RFP between the vendor and County after the publication date for the RFP must be with the RFP Coordinator. The RFP Coordinator is:

Mark E. Adams Project Coordinator Northrop Grumman 2401 Colonial Drive Helena, MT 59601 406.443.8694 (Phone) 406.449.8601 (Fax)

email: Mark.E.Adams@ngc.com

Contact the RFP Coordinator if there are any questions or concerns about the RFP or procurement schedule. Communication other than that provided by the NTIC in writing via fax, e-mail, or letter will be considered unofficial and non-binding. Vendors are to rely only on written statements issued by the RFP Coordinator. Communication with NTIC parties other than the RFP Coordinator may be grounds for disqualification of the proposal. If vendors transmit requested information to the RFP Coordinator through FAX or E-mail, formal written and signed copies must be sent to the RFP Coordinator in a hard copy format.

AMENDMENTS TO RFP

The NTIC reserves the right to amend the RFP at any time prior to the due date of proposals. If it becomes necessary to revise any part of the RFP, an addendum will posted on the NTIC web site. Addendum is also available by contacting the RFP Coordinator. All vendors must include acknowledgment of all addenda as part of their proposal. Failure to acknowledge the receipt of any addenda may be grounds for disqualification of the proposal.

FUNDING

The NTIC has estimated that it has approximately \$2,200,000 in funds to meet all requirements of the digital microwave system. The NTIC must meet all of its obligations with this budget.

ELECTRONIC VERSION OF RFP

An electronic version of this RFP can be obtained by contacting the RFP Coordinator as listed in *Section III: Proposal Submission*. The NTIC maintains final authority on the format in which any electronic documents may take. The RFP documents will be available in Microsoft Word,

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Excel and PowerPoint. The following table presents the detail information on these software products:

PRODUCT NAME	RELEASE INFORMATION
Microsoft Word 2000	(9.0.3821.SR-1)
Microsoft Excel 2000	(9.0.3821.SR-1)
Microsoft PowerPoint 2000	SR-1 (9.0.3821)
Acrobat Reader	5.5

PROPOSAL PREPARATION COSTS

The cost of developing and submitting the proposal is entirely the responsibility of the vendor. This includes costs to determine the nature of the project, preparation of the proposal, any site visits required to prepare the proposal, submitting the proposal, negotiating for any optional use contracts, providing on-site demonstrations of vendor products, and other costs associated with this RFP. All proposals will become the property of the NTIC and will be a matter of public record subsequent to the close of the procurement (i.e., contract signing by the selected vendor) or rejection of any bids.

REQUEST FOR ADDITIONAL VENDOR INFORMATION

The NTIC reserves the right to request additional information from vendors, as needed, to fully evaluate submitted proposals and the proposed solution. If information is requested from one vendor, the NTIC is not required to request such information from all vendors.

WRITTEN COMMUNICATION

Written communication means by letter and shall be effective if and only if it is in writing, properly addressed, and either delivered in person, or by a recognized courier service, or deposited with the United States Postal Service as first-class mail to the parties at the address in *Section III: Proposal Submission*.

RFP REVIEW

Vendors should carefully review the requirements in this RFP and promptly notify the RFP Coordinator in writing or via e-mail (1) of an ambiguity, inconsistency, or error which they discover in the examination of this RFP or (2) if there is any specification, language, or other requirement that overly restricts or limits a vendor's response.

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II. ADDITIONAL TERMS AND CONDITIONS

The following additional terms and conditions apply to this RFP and any contract entered into as a result of the procurement process.

MINIMUM QUALIFICATIONS

Vendors are sought who have proven experience in a project of this type and are responsive to the RFP.

- 1. In order to submit a proposal that is responsive to this RFP, the vendor and each partner (if proposed) must propose digital microwave that are installed and operating in a full production environment with a minimum of ten different customers, at least 2 of whom are in an operating environment similar to northern Montana.
- 2. The vendor shall provide a list of its projects similar in scope and nature, either completed or progressing toward completion. A list of contacts and representatives from the projects recipients shall also be provided for NTIC review.
- 3. These minimum qualifications will be substantiated through the vendor references supplied in response to the requirements in *Section VI: Company Overview*.
- 4. A proposal must include responses to all sections requested. (See *Section II: Right to Reject Proposals*). Vendors should note that the NTIC will not accept a proposal that requires the NTIC to be a first time installation or test site for the digital microwave system.

COMPLIANCE WITH SPECIFICATIONS

By submission of the proposal, the vendor certifies that all services proposed meet or exceed all requirements as set forth in the RFP, unless the proposal specifically states otherwise. Any deviations must be stated in writing and must include an explanation as to why the deviation will render equivalent or better performance and reliability. If no deviations are noted, the NTIC shall assume that the system completely conforms to the specifications and system requirements. The NTIC reserves the right to determine whether such substitutions or deviations are within the intent of the specifications and will reasonably meet the service requirements of the NTIC. The absence of specifications regarding details implies the best practices will prevail, and the successful vendor will supply only high quality, commercial grade equipment.



MODIFICATION OF PROPOSALS

At any time prior to the specified date and time for submission, a vendor may withdraw or modify their proposal. Any proposal modification must be in writing, executed by an authorized person, and submitted prior to the proposal submission date.

MISTAKES IN PROPOSALS

The NTIC reserves the right to waive any material defect, minor discrepancy, or informality in any proposal or proposal procedure.

The NTIC may waive any deviation in the vendor proposal. The NTIC waiver of a defect will in no way modify RFP requirements or excuse the vendor from full compliance with the contract requirements. In addition, the RFP Coordinator reserves the right to waive minor deviations from the RFP specifications that do not hinder the intent of this RFP.

WAIVER OR ASSERTION OF CONFIDENTIALITY

Each vendor, by submitting a proposal, waives any right of confidentiality as to the proposal, except as provided in the following paragraph, and agrees such proposal shall constitute a public record under County codes or Montana statutes.

If a vendor considers certain material in the proposal proprietary information, the vendor shall clearly designate those portions of the proposal it wishes to remain confidential. Such information will be handled in accordance with applicable County procurement codes and state of Montana statutes. The NTIC shall not be liable for any release of information, even if designated proprietary or confidential, pursuant to a court order.

RIGHT TO REJECT PROPOSALS

A proposal must include responses to all sections requested. If a vendor omits a response to a section, the proposal must provide an explanation as to why, and vendors acknowledge that by omitting the section, that proposals not providing the requested information may, at the sole discretion of the NTIC RFP Review Team and without contest, be rejected. Proposal response format is detailed in *Section VI: Proposal Response Format* of the RFP.

The NTIC reserves the right without contest to accept or reject any proposal. Regardless of acceptance or rejection, all proposals submitted become the property of the NTIC.

Issuance of this RFP in no way constitutes a commitment by the NTIC to award a contract. The

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RFP Review Team reserves the right to reject any or all proposals or portions of proposals received in response to the RFP, or to cancel this RFP if it is in the best interest of the NTIC to do so.

ADVERTISING

The vendor agrees to make no reference to the NTIC in any news release, or electronic/paper literature, promotional material, brochures, or the like without the express written consent of the NTIC.

REFERENCE CHECKS

The NTIC reserves the right to contact any current or prior vendor customers or clients, even in the event that these current or prior clients are not provided as references in the vendor's response to this RFP.

RFP AND PROPOSAL INCLUSION

This RFP and successful vendor proposals will be incorporated into any optional use contracts. In the case of contractual inconsistencies or disputes, the following order of precedence will prevail:

- The contract and any written and fully signed amendments.
- The RFP and any written amendments or addenda.
- Clarifications provided by the NTIC in response to vendor questions.
- The successful proposal, including any authorized written proposal amendments, received prior to the RFP closing date.

CANCELLATION OF RFP

The NTIC reserves the right to cancel the RFP or subsequent award of any contract at any time before execution of any contract if cancellation is deemed to be in the best interest of the NTIC. In no event shall the NTIC have any liability for the cancellation of the procurement.

BINDING SIGNATURE

A person authorized to bind the vendor in the matter must originally sign at least one copy of the proposal transmittal letter in ink. The name(s) of all persons signing should be typed or printed below, or next to the signature. Failure to submit a proposal bearing an original signature may

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result in rejection of the proposal.

NEGOTIATED VENDOR CAPABILITIES

Additional capabilities may be acquired through contract negotiations. The NTIC may, at its option, elect to include none, some, or all of the additional products or services discussed. Conversely, the NTIC may elect to acquire fewer components or modules than proposed if indicated because of funding constraints, or if determined by the NTIC to be in its best interests. The final decision on all negotiated vendor capabilities will be at the sole discretion of the NTIC.

ERRORS IN PREPARATION

The RFP Review Team has the right to rely on any proposal narrative, submitted supporting materials, and price quotes provided by vendors in their proposals or as a result of clarifications provided by the vendor. The vendor is responsible for any proposal inaccuracies, including mathematical error or incorrect extension of any calculations leading to the vendor's price quote. The RFP Review Team reserves the right to reject proposals that contain errors.

<u>CERTIFICATIONS AND ASSURAN</u>CES

The vendor must indicate a willingness to negotiate and enter into a contract containing terms and conditions that will control the future execution of the work.

CONTRACT NEGOTIATIONS

All contract negotiations will be held in Havre, Montana. The vendor is responsible for its travel and per diem expenses during contract negotiations. After announcement of the apparent successful vendor, the NTIC will enter into contract negotiations; the content of these negotiations is yet to be determined. However, the NTIC will want the apparent successful vendor to finalize the "Timeline" for the work, associated with a "Work Breakdown Schedule", that details tasks and responsibilities that are submitted with the proposal – (similar to the sample shown below):

WBS#	WBS Title	Action	Deliverable	Accountable	Approval
1	Contract	The project schedule starts at Contract Award.	Start of Project		
2	Project Kick Off	A project kickoff meeting will be held to formally begin the implementation of the project, introduce project teams, and review the project.	Meeting with NTIC	NTIC & Vendor	N/A



3	Design Review	Tasks associated with planning the detailed project execution take place during this phase of the project.	NTIC Design Review	NTIC Technical Team & Vendor	As defined below
	Post-Sale NTIC Design Review	The NTIC and Vendor will review the design through analysis of the system functionality together with the interface requirements as they relate to other end user requirements, as mutually agreed between Vendor and the NTIC.	Design review of the design and system interface design.	NTIC Technical Team & Vendor	As defined below

NOTE: The work breakdown is a detail of all tasks to be completed by all parties and designates responsibility for each task.

The NTIC shall provide the administrative Program Management function including financial and contract administration oversight.

The NTIC reserves the right to reject the apparent successful vendor if any of the following conditions arise:

- The contract negotiation period exceeds 30 days.
- The apparent successful vendor fails to sign a contract within 10 business days of delivery.

Under these conditions, the NTIC has the right to proceed with contract negotiation with the next highest scoring vendor or cancel the procurement.

SECURITY

Certain NTIC communication facilities represent environments that are critical to the current and future operations of public safety for the NTIC. Vendors and affiliated sub-contractors are expected to recognize the importance of these facilities and to treat information received from the NTIC with adequate confidentiality. The NTIC has the right to run background checks including criminal record checks on vendors, its employees, agents and subcontractors and to bar their admission to sensitive areas if the NTIC, in its absolute discretion, views a person as a security risk to NTIC personnel or law enforcement records. Additional aspects of security are not limited to, but include the following:

- Access to certain NTIC facilities and/or systems and data may require a security background check for all personnel.
- Certain facilities may have various levels of entry and exit security. Vendors and any sub-contract personnel will be notified of any specific procedures required. Failure to follow these procedures may result in the responsible vendor being considered in breach of contract.

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PRICE PROTECTION



The NTIC intends to enter into a long-term relationship with the successful vendor. This includes planning and implementation of the proposed system and ongoing maintenance and support for the system through an extended period. The NTIC may want to purchase additional equipment or software after system acceptance. Furthermore, other consortiums in the state of Montana may want to leverage the NTIC contract for their digital microwave requirements. The prices in the vendor's proposal for all proposed products and services must be held firm for the term of the contract plus 36 months and allow the NTIC or other government entities in the state of Montana participating in the new system the ability to purchase additional equipment at the same prices listed in the proposals. In-addition, Vendors are requested to provide an option (*Section VI: Recurring Maintenance and Support Organization*) to extend the price protection for two years. Vendors are requested to respond to the following questions: "Will the Vendor extend the contract prices to other units of local government and/or the State of Montana to purchase additional equipment if funding becomes available?"

WARRANTY

The warranty period shall begin upon official written acceptance of the full system by the NTIC. The vendor shall keep all equipment and software with the most current versions during the installation and acceptance period. If a warranty is not normally provided for software, the vendor shall so state and indicate itemized costs as part of the bid. If any defect or malfunction occurs within this warranty period the vendor shall repair or replace the defective unit at their sole cost and expense. Additionally, the vendor shall provide information (list cost separately as a bid option *Section VI: Bid Option Summary*) on extended warranty programs.

If it appears that within one year from the date of final acceptance of the system that the equipment does not meet the warranty specified herein due to repeated failures of the same component or unit that results in system availability less than defined in the final system acceptance, the vendor shall be required to replace the component or unit at no expense to the NTIC.

The vendor shall provide at least the following maintenance services:

- The vendor(s) will warrant all materials, workmanship and successful operation of all equipment supplied by them for a minimum of one year, or the manufacturers standard warranty, whichever is longer.
- On-Site Fixed Equipment Repair: The vendor will repair fixed equipment during the warranty/maintenance period. Personnel hired by the vendor must be fully qualified to service and maintain equipment according to the standards established by the equipment vendor. Vendor must maintain a complete inventory of all critical equipment, which may be necessary for emergency repairs within the geographical area of operations. The



contractor must agree to contract warranty service personnel who can respond to an outage of the system within 4 hours of notification by the NTIC.

- Board repair shall be provided at the vendor's authorized repair facility.
- Support Access to Resources: The vendor's technical support staff shall have direct access to the vendor system engineering staff to supplement its problem solving capabilities in instances of unusual or complex problems.
- Repair Qualifications: Personnel hired by the vendor must be fully qualified to service, maintain and install equipment (if necessary) in a professional manner according to the standards established by the equipment vendor and in accordance with the requirements of the NTIC. These qualifications will include current factory training provided by the vendors selected equipment manufacturer.
- Regular Business Hours Hot Line: The vendor shall provide a toll free line during regular business hours, Monday - Friday, 9AM-5PM, for technical questions and customer satisfaction issues.
- Test Equipment: The vendor will have sufficient test equipment to ensure swift and effective adjustment and repair of radios and fixed equipment.

Contract Period: The vendor shall provide first year maintenance pricing (for the features outlined above) as a wrap-around to the standard warranty. This proposal shall include costs for a minimum 4 hour on site response time from the maintenance vendor plus verifiable certification of completed factory training. Itemized the costs in *Section VI: Cost of Services*.

DOCUMENTATION REQUIREMENTS

The vendor shall provide adequate documentation in support of the final configuration and implementation plans. The vendor shall supply system manuals and equipment manuals. At a minimum this shall include:

- System component user manuals, one (1) master set and one (1) for each site
- System component maintenance manuals, one (1) master set and one (1) for each site
- NTIP system manual to include:
 - o System block diagram(s)
 - Design review documentation
 - System "As-built" system documentation including system coverage map for each site in use and a map showing system wide coverage.
 - System Acceptance Test Plan and Report
 - OET Site Certification for all sites. Compliant FCC and OSHA posting material must be present at all required locations.
 - Final system documentation in electronic format suitable for distribution and one (1) printed master set



In addition to manuals provided by the equipment manufacture, drawing, descriptions or schematics of any special strapping or modifications must be provided. All cables shall be marked and cable pair usage documented.

TRAINING

System management, technician and user training shall be provided during the system implementation process. The vendor shall describe their established training programs in support of this project. The vendor shall provide a cost per person for additional training sessions. Vendors are requested to identify critical staffing areas and issues related to the fixing of responsibilities to prevent chaos after system acceptance. (i.e. should one person be responsible for all programming (site and mobile), contracted service vs. in house staffing, and so forth.)

NTIC envisions complete system training for both technicians and end users. Training would consist of the following elements, (number of days are only estimates, time and elements will have to be finalized in contract negotiations.)

- 1. Technician training for up to 10 technicians
 - a) System infrastructure 5 days
- 2. System Management for up to 5 System Managers
 - a) System Manager 3 day
 Learning the configuration application for optimal system use and system management.

KEY CONTRACT STAFF

The vendor agrees that, for circumstances within the vendor's control, proposed vendor staff in key roles will remain on this project, that their level of involvement will not decrease beyond that proposed, and that they will not be reassigned or replaced by less proficient vendor staff. Any proposal by the vendor for changes to or replacement or substitution of key vendor staff throughout the duration of the project must be submitted to the NTIC for review and approval. Key vendor staff for this project has been identified as the persons performing the following roles:

- *Project Manager*. This is the person responsible for the overall schedule, budget, resources, and quality and who provides day-to-day management of the project. The person in this role is expected to have a significant on-site presence in Havre or Kalispell during all phases of project planning and implementation.
- *Technical Lead*. This person or persons are the primary technical architects and experts assigned to the project. As with the project manager, this person is expected to have a significant on-site presence in Havre or Kalispell during all phases of project planning and implementation.

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In the event a key vendor staff replacement is required or requested by the NTIC, the NTIC shall have the right to review resumes, interview replacement candidates, check candidate references and, at their discretion, accept or reject proposed replacements. In no event shall such changes in key vendor staff take effect without the written consent of the NTIC.

COMPENSATION

The NTIC will make payments against specific contract deliverables that will be identified in the contract negotiation process and through review of the vendor's proposal and approach. Payment on any contract deliverable will be contingent upon written acceptance and approval of the deliverable by the NTIC. The NTIC is not responsible for, and will not pay local, state, or federal taxes, and all invoiced costs associated with the contract must be stated in United States currency.

The NTIC may establish more, or fewer, contract deliverables in the contract negotiations process with the apparent successful vendor.

PROJECT MONITORING

The NTIC may elect to retain a third party to provide independent quality assurance monitoring and management assistance in the contract negotiations and implementation process resulting from this RFP. The objective of this external assistance is to provide an independent assessment of project progress and problems, provide management assistance as determined by the NTIC, and proactively recommend strategies and actions to avoid or mitigate project risks. The successful vendor must work cooperatively with this third party; share all vendor project management and implementation-related plans, working papers, and documentation associated with the project; and maintain a candid and open communication forum with the third party as well as with the NTIC.

PRODUCT LIFE CYCLE

It is important the vendor provides products that are not at the end of their respective life cycle. The vendor needs to indicate for each of the major infrastructure upgrades proposed, their estimation of the probable life of the units and how long they anticipate maintenance availability for the product. If a particular product is at the end of the estimated life cycle, the NTIC may be reluctant to acquire such products.



SUBCONTRACTORS

The Vendor may, only with prior written permission from the NTIC, enter into subcontracts with third parties for its performance of any part of Vendor's duties and obligations. In no event shall the existence of a subcontract operate to release or reduce the liability of the Vendor to the NTIC for any breach in the performance of Vendor's duties. All subcontractors shall be held to be agents of the Vendor and subject Vendor shall hold the NTIC harmless from acts or omissions of Vendor's subcontractors, their agents, or employees. NTIC shall not be liable for any loss or damage resulting from personal injury, physical loss, harassment of employee, or violations of any other duty occasioned by or arising from the acts or omissions of the Vendor its subcontractors, or their agents or employees.

HOLD HARMLESS

Vendors shall indemnify and hold NTIC harmless from any liability, claims, or damages arising out of or in any way connected with Vendor's performance of a contract. Vendor shall purchase and maintain liability insurance insuring Vendor from tort action claims resulting from the acts or omission of the Vendor or any person acting at the direction of the Vendor. The liability insurance shall provide coverage of not less than \$750,000 per claim up to a maximum of \$2 million per occurrence, and Vendor shall indemnify and hold the NTIC, as well as its agents and insurance carriers harmless from any and all claims from a third party relating to the acts or omissions of the Vendor. Upon request, Vendor shall provide the NTIC with written evidence from the insurance company verifying the existence of the insurance.

WORKERS COMPENSATION ACT COVERAGE AND COMPLIANCE WITH OTHER LAWS

Prior to performing work under this Contract, Vendor shall provide or purchase industrial insurance coverage for its employees, subcontractors and agents, as required of an "employer" as defined in Title 39 of the Montana Code Annotated, and shall maintain full compliance with the Workers Compensation Act (Sections 39-71-102, et. seq., MCA) during the course of this Contract. The NTIC will not be responsible for payment of Workers Compensation Act insurance premiums or for any other claim or benefit for Vendor or any subcontractor or employee of Vendor, which might arise under the Workers Compensation Act or other laws applicable to the employer/employee relationship during the performance of duties and services under this Contract. Prior to performance of this contract or permitting any subcontractor or other agent to perform work under this contract, Vendor shall supply written evidence to the NTIC's satisfaction that Vendor is insured pursuant to the Workers Compensation Act, or that Vendor and its subcontractors have registered as a Contractors pursuant to Section 39-9-201, MCA, or are the recipients of certificates of exemption from the Workers Compensation Act as provided by Section 39-71-401, MCA.



III. INSTRUCTIONS TO BIDDERS

This section provides overall instructions and key requirements that vendors should be aware of and adhere to in the procurement process and preparation of proposals.

PRIME CONTRACTOR

Joint ventures that include a consortium of vendors are acceptable. If submitting a proposal as a joint venture, a prime contractor who assumes overall project responsibility and accountability for the performance of all consortium members and the project must be identified.

ALTERNATE PROPOSALS

Vendors may submit more than one proposal. If a vendor submits alternate proposals, they must identify one proposal as the "primary proposal," and primary and alternate proposals must be clearly and visibly identified and separately bound. Both primary and alternative proposals must stand on their own, be full and complete, and comply with the requirements and terms of the RFP. For example, an alternate proposal may not refer to the primary proposal for additional or required information.

VENDOR ELECTRONIC MAIL ADDRESS

Each of the vendors interested in participating in this procurement process should provide the RFP Coordinator with an e-mail address for expediting communications. Addenda to the RFP and other official notifications may be initially made through e-mail.

E-mail will only be used for the areas prescribed by the RFP Coordinator. The RFP Coordinator, prior to e-mail transmission must request information from the vendors prior to transmission. Random or un-requested e-mails from vendors may be cause for lack of consideration of the vendor's proposal. Significant information received by the RFP coordinator in an e-mail, must be placed in a formal letter, signed and sent to the NTIC by formal means.

VENDOR CUSTOMER SITE VISITS

At the discretion of the RFP Coordinator and RFP Review Team, the NTIC may elect to perform site visits at customer locations utilizing most or all of the proposed solutions. These optional site visits will be in addition to the presentations and technical demonstrations discussed previously. Some or all RFP Review Team members would travel, at NTIC expense, to sites at which finalist vendors have installed the proposed system. The purpose of such visits would be

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to provide the evaluation team with an increased understanding of the proposed solution and assess the proposing vendor's implementation and support performance.

PROPOSAL SUBMISSION

One (1) original and seven (7) printed copies and one (1) electronic copy of the bidder's management and technical proposal and associated cost proposal must be submitted no later than the RFP closing date indicated in the schedule of events in *Section I: Schedule of Events* to the following address:

Mark E. Adams RFP Coordinator Northrop Grumman 2401 Colonial Drive Helena, MT 59601 406.443.8694 (Phone) 406.449.8601 (Fax)

email: Mark.E.Adams@ngc.com

The original of the proposal shall be submitted in a separate envelope or wrapper from the copies. The original will be used at the bid opening. The copies may be boxed or packaged together. Both the original and the copies shall be <u>clearly labeled *NTIC Microwave Bid*</u>. Proposals received after the stated time will be retained, unopened, and will not receive consideration.

PERFORMANCE BOND

The selected vendor may be required to supply a performance security bond to guarantee the faithful performance of the contract and payment of all laborers, suppliers, and subcontractors in accordance with 18-4-312, MCA. The security bond may be in the form of cash, certified check or a bond executed by a corporation authorized to contract as surety in the state of Montana payable to Glacier County. The amount of the performance bond must be determined by the County and sufficient to cover the risk involved to the County (18-4-312 (3), MCA). The bond or certified check will be returned after the final acceptance of the system. The details of this requirement will be negotiated at the time of contract negotiations.

WITHDRAWAL OF BIDS

A vendor may withdraw its proposal at any time prior to the scheduled closing time for receipt of proposals. A vendor's request to withdrawal must be received in writing by the RFP Coordinator

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via fax, e-mail, or letter at the address listed in *Section III: Proposal Submission* prior to the RFP closing date specified in the schedule of events in *Section I: Schedule of Events*.

PUBLIC BID OPENING AND CONFIDENTIALITY

Proposals and modifications shall be time-stamped upon receipt and held in a secure place until the established due date.

On the date and hour scheduled for bid opening, the names of those vendors who submitted proposals will be announced and the amount of each bid will be recorded in accordance with Title 18-4-304, MCA; and may be inspected by the public subject to the limitations of: the Uniform Trade Secrets Act, Title 30, Chapter 14, part 4; and matters involving individual safety as determined by the NTIC.

Vendors are directed to provide the total amount of their bid in the transmittal letter and to bring to the NTIC's attention any matters of confidentiality related to the Trade Secrets Act.

PROPOSAL RESPONSE FORMAT

Section VI outlines the appropriate format and information that should be provided in the bidder response. Vendor responses should be prepared simply and economically providing a straightforward, concise description to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content. Brevity will assist the RFP review team in its work to review the proposals. Repetition of the terms, conditions, and requirements in the RFP, without additional clarification, may not be considered sufficiently responsive unless otherwise specifically stated in the RFP. Any proposal not providing the required information, or significantly deviating from the specified format, may be eliminated during the evaluation process as outlined in Section VII: Evaluation of Proposals. In addition, failure to conform to the requested format may result in information being overlooked in the proposal evaluation process.

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IV. NTIP PROJECT DESCRIPTION

SYSTEM OVERVIEW

The Northern Tier Interoperability Project is a public safety system designed to improve interoperability between all public safety responders throughout the 12 counties and 4 tribal nations which make up the NTIC. The system is designed around 18 trunked and 5 conventional VHF narrowband highband repeater sites. The trunked radio sites each require a single T-1 circuit to the Motorola Smartzone Master Control Site located in the Law Enforcement Center in Helena, MT.

In addition to the needs of the trunked radios, each trunked radio site requires a single T-1 connected to the Montana Highway Patrol facility at Fort Harrison for mobile data. Also, the Montana Army National Guard requires a single T-1 circuit those trunked radio sites which provide connectivity from Fort Harrison to each of the eight armories in the Northern Tier, which are located in Libby, Kalispell, Havre, Chinook, Malta, Glasgow, and Culbertson. Finally, there is a need for four T-1 circuits for the National Park Service from the Divide Mountain site to the Desert Mountain site.

The NTIP design calls for a digital microwave system capable of providing this connectivity for current needs, while providing for expansion to a statewide system without the need to replace the digital microwave equipment. The current system requires a combination of ring and hot standby protected circuits, with the capability of being upgraded to accommodate a statewide ring formation.

TECHNICAL AND PERFORMANCE REQUIREMENTS

The design for the digital microwave system must achieve 99.999% system availability. Extensive research has been conducted to understand the leading causes that affect this availability goal. This research has shown that the number one leading cause of reduced system availability on Motorola's SmartZone and OmniLink systems has been malfunctioning or substandard microwave or T1 links. Therefore at a minimum, the proposal must meet the following technical and performance requirements.

Documentation:

Before testing any circuit, the circuit topology and routing needs to be clearly understood. A circuit topology and routing map will be made available by the microwave vendor as part of their proposal.



Power Level:

The power level test verifies that the T1 circuit has the proper receive level set. Having the correct receive level will provide the best possible margin on the receive side of the circuit. The pass criteria is +12.4 to +19.7 dBm. Reference Bell Core standard GR-54-Core.

Pulse Mask:

The pulse mask test will verify that the T1 circuit meets industry standard ANSI T1.403 for amplitude, rise time, fall time and frequency (1/T). A T1 can pass all other tests and still fail the pulse mask because most equipment designed today has about 30 dB of dynamic range to recover the signal. Again, the pass criteria is ANSI T1.403 pulse mask. Pulse mask issues are most often found in copper-based circuits but the test will be performed on a microwave system.

T1 Clocking:

The T1 clock synchronization will be a Stratum Level 1, or explain why this is not necessary.

Line Coding and Framing:

Motorola requires B8ZS coding and ESF framing on all circuits.

Bit Error Rate Tests and Configurations:

The maximum T1 circuit Bit Error Rate for reliable operation is 10E–5. The following parameters will be measured:

- Bit Errors: BER to be verified for 10E–5 based on one minute sample sizes over a 72 hour test period.
- Error Free Seconds: The pass criteria is a minimum of 99.95% error free. This is based on AT&T Publication 62411 for a circuit of less than 250 miles.
- Available time: The pass criteria is a minimum of 99.999% available.
- Severely Errored Seconds (SES): The pass criteria is no more than six SES per 24-hour period. This is based on AT&T Publication 62411 for a circuit of less than 250 miles.
- Bi-Polar Violations: The pass criteria is zero Bi-polar violations over a 24-hour period.
- Frame Slips: The pass criteria is zero frame slips over a 24-hour period.



Results must be documented and submitted to the NTIC once they are available. The over-all goal is to provide the NTIC with a system that provides 99.999% availability.

Loop Switch:

- The loop switch threshold point will occur at 1 x 10-4 BER and
- The loop switch will be non-reverting.

Four-wire Receiver Site Connections:

The connections to the remote sites require specifications on the order of AT&T Type 3002 or Service Type 5 conditioned four-wire lines. The following is a partial list of the Type 3002 specifications:

- Insertion Loss @ 1 kHz: 16 dB
- Loss Variation @ 1 kHz
 - o Long-term: +/- 4 dB
 - o Short-term: +/- 3 dB
- Bandwidth: 2700 Hz (300-3000 Hz)
- Frequency Response (ref. 1 kHz)
 - o 500-2500 Hz: loss, -2 to +8 dB
 - o 300-3000 Hz: loss, -2 to +12 dB
- Delay Distortion
 - o 800-2600 Hz: 1750 microseconds
- Max. Ave. Input Signal Level: 0 dBm at Network Interface
- Max. Test Tone Level: 0 dBm at Network Interface
- Frequency Shift: +/- 5 Hz
- Phase Jitter: less than 10 degrees
- Physical Interface: RJ-45

V.24 Interface:

• Physical Interface: RJ-45

FREQUENCIES

The proposal must include the identification, acquisition, coordination and licensing of all frequencies required by the design. The vendor may use a combination of 6 and/or 11 GHz. Vendors need to be aware that the majority of the NTIP falls above Line A.

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MASTER CONTROL SITE

Location: Law Enforcement Center, 221 Breckenridge, Helena, MT

SITE LOCATIONS

The NTIP system consists of the following trunked radio sites requiring microwave:

Site	Latitude	Longitude	AMSL
King Mtn	48-29-13	115-47-40	5830
Blue Mtn	48-29-58	115-27-12	6023
Pinkham	48-38-37	115-5-31	6332
Jette	47-46-24	114-16-8	5202
Divide	48-40-9	113-23-11	8599
Desert	48-25-46	113-57-58	5480
Kalispell	48-12-46	114-19-17	3070
HCSO	48-33-09	109-42-24	2632
Saco	48-27-14	107-27-28	2675
Gideon	48-6-33	106-43-15	2456
Wolf Point	48-12-34	105-35-22	2588
Culbertson	48-12-02	104-31-52	2150
Plentywood	48-41-36	104-35-42	2602
Scobey	48-48-01	105-20-37	2815
Ophiem	48-51-38	106-28-29	3290
Blacktail Mtn	48-00-40	114-21-48	6715
Mt. Royal	48-51-17	111-8-20	6935
Centennial	48-12-34	109-50-14	5792
Antoine Butte	47-55-56	108-34-38	5820

It's anticipated that not all sites can be connected directly, and that some additional microwave repeater sites will be required to connect the NTIP system. It is the responsibility of the vendor to identify and propose any additional sites required for connectivity. The vendor may propose the construction of new microwave repeater sites and include the turnkey cost of those sites as an optional component of their proposal. The vendor may also identify existing microwave repeater sites and if they are able to negotiate the use of those sites, use them in their proposal.



Western Connection (Option 1)

The NTIP system requires pass-through connectivity from the LEC to the Jette site. Pricing and design should be proposed for microwave connections from the LEC \rightarrow MacDonald Pass \rightarrow Pauly \rightarrow Miller \rightarrow Point 6 \rightarrow Jette. Site information for those sites are:

Site	Latitude	Longitude	AMSL
Pauly	46-30-46	112-40-16	5799
Miller	46-45-26	115-27-12	6975
Point 6	47-02-26	113-59-13	7593

Western Connection (Option 2)

The vendor may optionally provide a proposal which provides pass-through connectivity from MacDonald Pass to Jette.

Eastern Connection (Option 1)

The NTIP system requires pass-through connectivity from the LEC to the Centennial site. Pricing and design should be proposed for microwave connections from the Gore Hill → Highwood Baldy → Centennial or HCSO. Site information for those sites are:

Site	Latitude	Longitude	AMSL
Gore Hill	47-28-54	111-21-22	3675
Highwood			
Baldy	47-26-31	110-37-48	7614

Eastern Connection (Option 2)

The vendor may optionally provide a proposal which provides pass-through connectivity from Gore Hill to Centennial or the Hill County Sheriff's Office (HCSO).



T-1 REQUIREMENTS

The NTIP system requires the following connectivity:

Site	T-1	Destination	T-1	Destination	T-1	Destination
King Mtn	1	LEC	1	MHP		
Blue Mtn	1	LEC	1	MHP	1	Ft. Harrison
Pinkham	1	LEC	1	MHP		
Jette	1	LEC	1	MHP		
Divide	1	LEC	1	MHP	4	Desert
Desert	4	Divide				
Kalispell	10	LEC				
HCSO	10	LEC	1	MHP	1	Ft. Harrison
Saco	1	LEC	1	MHP	1	Ft. Harrison
Gideon	1	LEC	1	MHP	1	Ft. Harrison
Wolf Point	1	LEC	1	MHP		
Culbertson	1	LEC	1	MHP	1	Ft. Harrison
Plentywood	1	LEC	1	MHP		
Scobey	1	LEC	1	MHP		
Ophiem	1	LEC	1	MHP		
Blacktail Mtn	1	LEC	1	MHP	1	Ft. Harrison
Mt. Royal	1	LEC	1	MHP		
Centennial	1	LEC	1	MHP	1	Ft. Harrison
Antoine Butte	1	LEC	1	MHP	·	

The T-1 for MHP must be split out to 24 4-wire circuits at each drop.

SPARES

Components, boards, other parts to be purchased and maintained on site to keep the system operating. Explain and itemize the critical spare parts required to maintain the system on a 24x7 basis.

TRAINING

See Section II: Training

WARRANTY / MAINTENANCE

See Section II: Warranty

DOCUMENTATION REQUIREMETNS

See Section II: Documentation Requirements



INSTALLATION

All equipment installation must be installed in professional manner and be fully documented. In addition to manuals provided by the equipment manufacturer, drawing, descriptions or schematics of any special strapping or modifications must be provided. All cables shall be marked and cable pair usage documented. Cables terminated on punch blocks shall follow industry color-coding formats. All equipment shall be installed in accordance with all applicable building, electrical, and safety codes.

ACCEPTANCE TESTING

The successful vendor shall prepare and deliver a detailed System Design Document and Test Procedures prior to the start of system installation. These test procedures must be designed to test all the facets of the system, including hardware and software and must include provisions that demonstrate the system meets reliability and capacity as set forth by the vendors response to the RFP and jointly agreed to during project review. The NTIC shall approve the test procedure with mutually concurred modifications if necessary. Functional demonstration tests utilizing the manufacture's diagnostics must be performed. The test documentation submitted shall describe in detail each test; the functions to be tested and expected test results. Vendor shall provide all test equipment required to conduct each test.

The vendor, with assistance from the NTIC, shall schedule and perform a peak load test to demonstrate that the system is capable of supporting the capacity described in the vendor's response to the RFP and jointly agreed to during project review.

The vendor shall record test results and prepare a final report that includes a record of all failures and necessary corrective action. The report shall be submitted to the NTIC for concurrence and acceptance sign-off. In the event problems are encountered during the system testing, those items failing to meet specification shall be noted, as well as what corrective action was taken.

The NTIC will only accept the system after:

- > All hardware components have been delivered, installed, and tested;
- > All documentation, including as-built drawing, have been delivered and accepted;

- > All system testing is completed and required corrections are successfully completed.
- > Training



V. DELIVERABLES

OVERVIEW

This section addresses both the requirements of the NTIC to acquire a turnkey digital microwave system that meets the needs of the user agencies. The immediate needs are for the design services, hardware, software, installation, testing and acceptance of the NTIP digital microwave system.

<u>DELIVERABLE #1 – DIGITAL MICROWAVE SYSTEM</u>

Vendor to provide engineering services to design a digital microwave system which provides the required bandwidth between the required sites and performs at the required reliability with required protection. Vendors must, at a minimum, provide a narrative description of an appropriate digital microwave solution and rough order of magnitude of cost for the system.

- 1) Digital Microwave System
- i) Primary Specifications (50 points)
 - a) Must connect the NTIP system locations as detailed in *Section IV: NTIP Project Description SITE LOCATIONS*
 - b) Must meet technical performance specifications as detailed in *Section IV: NTIP Project Description TECHNICAL AND PERFORMANCE REQUIREMENTS*
 - c) Must meet bandwidth requirements as detailed in *Section IV: NTIP Project Description T-1 REQUIREMENTS*
 - d) Must demonstrate upgradeability to an OC3 or greater either through software or hardware. Upgrade pricing must be included (software, hardware, labor and licensing)
 - e) Pricing must be extended for 3 years to all federal, tribal, state and local government within Montana
 - f) Must include all engineering and design services
 - g) Must include equipment installation and testing
 - h) Must include system management and software for a minimum of 5 licenses
 - i) Must provide hot standby protection on all hops
 - j) Proposal must demonstrate ability to convert to a ring configuration
 - k) Proposal must include a full complement of spares for three service shop locations as recommended by the manufacturer
 - 1) Must provide a workplan showing completion no later than August 31, 2006
 - m) Design must utilize antenna mounted radio units



- n) Antenna installation must meet licensing requirements to accommodate no less than an OC3 capacity.
- i) Secondary Specifications (40 points)
 - a) Provide a narrative description of the appropriate microwave solution
 - b) Must be a combination of 6 and/or 11 GHz
 - c) Must include a plan for Technical Training to a minimum of 10 technicians
 - d) Must include equipment staging prior to installation, with demonstration and acceptance
 - e) Must include all FCC licensing, including coordination of frequencies (both US and Canada)
 - f) At a minimum, must use SNMP for system management
 - g) Must include system management and be configured for external alarms for a minimum of 10 circuits per site, with demarcation at a 110 block
 - h) Must include order wiring
- 2) Provide any other information that is pertinent to either alternative and concerns, including but not limited to
 - a) Include turn-key costs for towers used in the system
 - b) 3 year extended warranty for all equipment

DELIVERABLE # 2 – RECURRING MAINTENANCE AND SUPPORT ORGANIZATION

The vendor should describe the recurring maintenance cost for proper radio communication operations along with recommendations on recurring funding mechanisms. Wherever possible, the vendor should support the recommendations with national experience from <u>other municipality best practices</u>.

Vendors must describe their past experience and approach to providing the requested information in the proposal. This report is to be delivered to the NTIC 120 days after contract signing. The successful vendor is expected to work with NTIC during the installation process to identify specifics of the changes and share information that the NTIC can consider for immediate change.

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VI. PROPOSAL RESPONSE FORMAT

This section outlines the appropriate format and information that should be provided in the bidder response. Any proposal not providing the required information, or significantly deviating from the specified format, may be eliminated during the evaluation process as outlined in *Section VII: Evaluation of Proposals*. In addition, failure to conform to the requested format may result in information being overlooked in the proposal evaluation process.

PROPOSAL PREPARATION

Vendor RFP responses should be prepared simply and economically providing a straightforward, concise description of vendor capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content. Repetition of the terms, conditions, and requirements in the RFP, without additional clarification, may not be considered sufficiently responsive unless otherwise specifically stated in the RFP.

Vendor proposals should observe the following formatting guidelines:

- See Section III: Instructions to Bidders
- Proposals should be submitted in a clear, orderly format in conformance with this section of the RFP. However, no weight will be given to elaborate packaging or style of a vendor's proposal.
- Proposals shall use Times Roman 12-point font.
- An index or table of contents should be provided which notes each section of the submitted proposal.
- Each major section of the submitted proposal should be clearly tabbed for easy access and reference.
- Proposals shall also be supplied on electronic CD format capable of being copied and distributed.
- The transmittal letter should be included at the front of the response, independent of the proposal sections, for quick reference at bid opening and by the RFP Review Team.

Significant deviation from the above factors may be considered sufficient to disqualify a vendor's proposal.



RECOMMENDED PROPOSAL TABLE OF CONTENTS

The following table of contents is provided to guide vendors in organizing the packaging of their proposals. Major proposal sections, at a minimum (e.g.. Section 1, Section 2,), should be separated with clearly labeled dividers or tabs. Vendors should not deviate from this suggested format unless the constraints associated with this table of contents will not allow adequate presentation of their proposal.

Transmittal Letter

- ➤ Include Bid Total.
- Include any issues regarding confidentiality or trade secrets.

Table of Contents

Section 1. Company Overview

- 1.1 Executive Summary
- 1.2 Company Overview and Qualifications
- 1.3 Financial Statement
- 1.4 Contract Performance
- 1.5 Company References

Section 2. Recurring Maintenance and Support Organization

- 2.1 Overview and Process Explanation
- 2.2 Recommendations for Recurring Maintenance
- 2.3 Proposed RPS Governance Structure
 - 2.3.1 Schematic with Narrative
 - 2.3.2 Staffing
 - 2.3.3 Rationale for Recommendations
 - 2.3.4 Other Considerations

Section 3. Digital Microwave System

- 3.1 Description of proposed solution
- 3.2 NTIC staff resource impact
- 3.3 Description of Proposed Equipment
- 3.4 Description of an other required resources
- 3.5 Rationale for Proposed Solution
- 3.6 Schedule for implementation
- 3.7 Other Information
- 3.8 Cost with comprehensive list

Section 4. Cost of Services

- 4.1 Cost Summary
- 4.2 Explanation of Proposed Cost
- 4.3 Key Back-up Parts
- 4.4 Training
- 4.5 Other Concerns and Issues

Section 5. Summary of Bid Options

5.1 Digital Microwave Solution



- 5.2 Extended Warranty
- 5.3 Two Year Price Protection
- 5.4 Other Concerns and Issues

Sections 1 through 3 constitute the vendor's management proposal. Section 4 is the vendor's cost proposal. Section 5 is a summary of requested bid options. Adhering to this recommended table of contents will assist the vendor in organizing its proposal to facilitate a thorough understanding and evaluation of proposals by the RFP Review Team.

COMPANY OVERVIEW

This discussion applies to Section 1 – Company Overview of the vendor's recommended proposal format discussed in *Section VI: Proposal Response Format* of this RFP. The following information provides a description of the information required in this portion of the vendor's response to the RFP. The requested information in this section is as follows:

VENDOR	RESPONSE	REQUESTED INFORMATION
OUTLINE		
SECTION IDENTIFIER	SECTION TITLE	
1.1	Executive Summary	The vendor shall provide an executive summary that encapsulates the vendor's proposal. The vendor shall describe their solution and explain how the vendor's proposed solution best meets the needs of the NTIC. The NTIC desires the following information: • A schematic and narrative description of the proposed infrastructure r. • The vendor's approach to implementation of the proposed solution. • Identification of any required training. • Identification of any major concerns on the part of the vendor about the proposed system. • How the vendor expects this solution to align with the future statewide plan.
1.2	Company Overview and Qualifications	 The vendor shall provide an overview of the company or consortium's history in providing digital microwave communications support that is sought in this procurement. This overview, shall, at a minimum, include the following components: A brief background of the company(ies) indicating history, primary business location, local presence, business/market focus for the vendor(s), and division or organizational entity responsible for the products and services in the proposal (if appropriate). A brief statement on specific project experience with digital microwave solutions. Provide a list of all projects similar to the one being proposed under taken in the past 6 years and a contact person for each project. The statement information should include size of project, technology used, and lessons learned that are applicable to this project. If a consortium of vendors is proposed, this information shall be provided for each consortium vendor. The proposed role, responsibilities, products, and services to be provided by each



VENDOR	RESPONSE	REQUESTED INFORMATION
OUTLINE	TEST OF USE	
SECTION IDENTIFIER	SECTION TITLE	
		 member of the consortium shall be included. Disclosure of any judgments, pending litigation, or other real or potential financial reversals that might materially affect the viability of the vendor(s) organization or public safety products, or warranty that no such condition is known to exist. Disclosure of any known or planned sale, merger, or acquisition of vendor's company. Historical ability of the vendor to provide and install the equipment in a responsive and timely manner. Ability of the vendor to provide long-term preventative maintenance and timely repair.
1.3	Financial Statements	 The vendor shall submit a copy of its most recent audited financial statement. The audited financial statement shall have been completed by a Certified Public Accountant or recognized accounting firm, if the vendor is a publicly held corporation. If the vendor is not a publicly held corporation, the vendor must comply with this requirement by providing all of the following information: A description of the proposing organization, including size, longevity, client base, areas of specialization and expertise, and any other pertinent information in such a manner that the proposal evaluator may reasonably determine the stability and financial strength of the organization. A banking reference from the vendor's primary banker, including contact name, title, address, and telephone number.
1.4	Contract Performance	If for any reason, the vendor(s) has (have) had a contract terminated prior to contract completion during the past 5 years, all such incidents shall be described, including the other party's name, address, and telephone number. The NTIC will evaluate the facts and may, at its sole discretion, reject the vendor's proposal if the facts indicate that completion of a contract resulting from this RFP may be jeopardized by selection of the vendor. If no such terminations have been experienced in the past 5 years, the vendor shall so state.
1.5	Company References	The vendor and each consortium partner (if proposed) shall provide firm/company references validating the minimum qualifications to propose identified in this RFP as described in <i>Section II: Minimum Qualifications to Propose</i> . The references shall demonstrate specific experience providing the same or highly similar integrated digital microwave communications system sought through this procurement, and references supplied shall, in sum, cover all areas delineated in this RFP. It is highly desirable that each reference supplied covers most or all of the infrastructure changes identified in the proposal with a single customer. These references shall be for customer installations where the communications system is in daily operational use (i.e., not in the development or installation process). The vendor's references response shall minimally include: • The vendor(s) to which the reference applies. • A brief description of the project.

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VENDOR	RESPONSE	REQUESTED INFORMATION
<u>OUTLINE</u>		
SECTION IDENTIFIER	SECTION TITLE	
		 The customer name and address where the system is installed. The time period during which the system was installed, ending with the date the system became operational. A customer contact name, title, address, and telephone number. In addition, the vendor shall provide a list of all installed sites started in the last 6 years for each subsystem. The list should indicate which subsystems are in place at each site.

The proposal responses in this section of the proposal should be organized by identified section and presented on standard 8½ by 11-inch paper. Any narrative discussion should ensure the reference to the RFP is clearly identified in the vendor's response.

RECURRING MAINTENANCE AND SUPPORT ORGANIZATION

This discussion applies to Section 2 of the vendor's recommended proposal format discussed in *Section VI: Proposal Response Format* of this RFP. The NTIC believes that vendor support can best be delivered through the use of a local support organization. If other solutions are proposed, the vendor must justify these recommendations. The following information is requested from the vendor relative to maintenance and internal support organization required to operate the digital microwave system over the next several years.

VENDOR RESPONSE OUTLINE		REQUESTED INFORMATION
SECTION IDENTIFIER	SECTION TITLE	
2.1	Overview and Process Explanation	Describe past experience and approach. This report is to be delivered to the NTIC 120 days after contract signing .
2.2	Recommendations for Recurring Maintenance	Explain the detail recommendations for recurring digital microwave system maintenance.
2.3	Proposed Digital Microwave System Governance Structure	Recommend a governance structure for the long-term operation of the digital microwave system. Explain the structure of the organization, and the funding mechanism for continual replacement and maintenance of existing and future equipment.
2.3.1	Schematic with Narrative	Present a graphic and narrative description of the desired governance structure.
2.3.2	Staffing	Identify personnel descriptions for the type of personnel that may be required in the proposed governance structure.
2.3.3	Rational for Recommendations	Utilize this section to discuss your rational for the above noted recommendations. Justify governance and recurring maintenance cost recommendations
2.3.4	Other Considerations	Use this area of your proposal to discuss any other area of consideration relative to these recommendations.



DIGITAL MICROWAVE SYSTEM

VENDOR RESPONSE OUTLINE		REQUESTED INFORMATION				
SECTION	SECTION TITLE					
IDENTIFIER	D : :: 0 1		0 11 1 1			
3.1	Description of proposed solution	Describe your recommendations for digital microwave solution. Utilize any support material required to present the details of your				
	Solution	recommendations.	present the de	ctails of your		
3.2	NTIC staff resource	Identify, if necessary, your estimation of the resource impact to the				
	impact	NTIC for operations and maintenance of the proposed digital microwave solution				
3.3	Description of Proposed	Describe the equipment proposed for the digital microwave solution. At				
	Equipment		ption of the equipment,			
3.4	Description of any Other	Describe any other resources requ	purpose and performance expectations Describe any other resources required to implement the digital			
3.1	Required Resources	microwave solution.				
3.5	Rationale for Proposed	Describe your rationale for the pr	oposed digit	al microwave solution.		
	Solution	Describe why you believe that your solution will provide the gr				
		benefit to the NTIC. Wherever possible, identify specific benefits to t				
2.6		NTIC for implementation of the proposed digital microwave solution.				
3.6	Schedule for	Identify the schedule for implementation of the proposed digital				
3.7	implementation Other Information	microwave solution.				
3.7	Other Information	Use this area to describe any other areas or issues you believe should be discussed relation to this requirement.				
3.8	Cost	Identify costs (One-time & Recur		following categories:		
	Digital Microwave	EXPENSE	ONE	RECURRING		
	System	AREA	TIME	COST		
		Equipment	\$	\$		
		Services	\$	\$		
		• Software	\$	\$		
		 Training 	\$	\$		
		• Other	\$	\$		
		Total for Infrastructure	\$	\$		



COST OF SERVICES

This discussion applies to Section 4 of the vendor's recommended proposal format discussed in *Section VI: Proposal Response Format* of this RFP. The vendor is expected to detail all the costs for equipment, installation, and services for a turn key digital microwave system as detailed in this RFP. Redundant equipment is separated into "primary" meaning most important and "secondary". It must be clear to the evaluators what the cost of system will be. If a vendor is bidding below actual cost the vendor is required to so state and to inform the NTIC what the real cost is. Implementation includes all services required to provide a turn key system. Vendors should provide the cost information in a similar format for the proposed solutions:

VENDOR RESPONSE OUTLINE		REQUESTED INFORMATION		
SECTION	SECTION			
IDENTIFIER	DESCRIPTION			
4.1	Cost Summary	The cost components of your proposal should cover all services to provide the system, recurring maintenance and 'as built' digital microwave software/services. Identify summary costs (One-time & Recurring) for the following categories: EXPENSE ONE RECURRING AREA TIME COST - Equipment - Redundant Equipment Costs - O Primary - O Secondary - Implementation - Services & Install - Software - Training - Licensing - Key Backup Parts - Other (specify) TOTAL		
4.2	Explanation of Proposed Cost	For all of the above noted expense areas list each detail item of expense and show any onetime or recurring costs. (Show licensing upgrade, site work and other types of detail costs) This section must provide sufficient detail for full cost evaluation.		
4.3	Ten Year Phase 1 Cost	Provide a ten year cost estimate to purchase, install and maintain the current and upgrades to the digital microwave system.		



4.4	Key Back-up Parts	Components, boards, other parts to be purchased and maintained on			
	Detail	site to keep the system operating. Explain and itemize the critical spare			
		parts required to maintain the system on a 24x7 basis.			
		EXPENSE ONE RECUR	RING		
		AREA TIME COST			
4.5	Training Detail	Provide the requested information and itemize cost of training as			
		detailed in Section II: Training.			
		Technician training			
		Operator Training			
		System Management			
		Subscriber Software Programming			
		User Training –			
4.6	Other Concerns and	Identify any issues or concerns you may have rela	tive to this cost		
	Issues	information.			

Any capabilities proposed, but not found in the above noted cost table, are assumed to be provided in conformance with the RFP requirements at no cost to the NTIC. In addition, all prices proposed must be free on board (FOB) destination with all transportation and handling charges included. Prices quoted shall include all costs for which the NTIC shall be responsible, and unspecified costs shall be borne by the vendor. If quoted prices decrease prior to date of shipment, the NTIC shall have the benefit of such lower prices.



BID OPTIONS SUMMARY

Summarize the Bid Options requested in the RFP. The vendor should provide summarized cost information for the optional solutions:

VENDOR RESPONSE OUTLINE		REQUESTED IN	FORMATION	
SECTION	SECTION			
IDENTIFIER	DESCRIPTION			
10.2	DIGITAL	EXPENSE	ONE	RECURRING
	MICROWAVE	AREA	TIME	COST
	SOLUTION			
10.3	Extended Warranty	Provide a description and detail of cost.		
	Refer to Section II:	EXPENSE	ONE	RECURRING
	Extended Warranty	AREA	TIME	COST
10.4	Two Year Price	Provide a description and any other detail or cost to provide a two-		
	Protection	year price protection as requested in Section II: Price Protection		
		instead of a one-year price protection.		
10.8	Other Concerns and	Identify any issues or concerns you may have relative to this cost		
	Issues	information.		



PROPOSAL APPENDICES

Proposed software licensing agreements, maintenance contracts, and other such documents that the vendor desires may be included as an appendix to the proposal in this section. By accepting delivery of these items, the NTIC is not bound to accept them as part of the contract, and the acceptability of these items will be determined in consultation with NTIC legal counsel. In the event that the NTIC determines that any such item or portion thereof is unlawful or unacceptable, the parties at the sole option of the NTIC may institute negotiations of those items that are not already covered in the RFP, its attachments, and any written clarifications or amendments thereto. The NTIC may reject the proposal of any vendor who refuses to accept the terms and conditions approved by the NTIC with respect to these peripheral agreements.

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VII. EVALUATION OF PROPOSALS

This section describes the methodology and criteria that will be used to evaluate proposals submitted in response to this RFP. The NTIC will use the evaluation process described in this section to determine the apparent successful bidder. It is the NTIC's intent to select the proposal that presents the most effective solution. This will be determined using a weighted evaluation methodology that considers:

- > The vendor's qualifications and prior performance.
- > The skills, experience, and credentials of key members of the proposed project team.
- > The infrastructure costs required to implement the proposed system.
- > Whether the offered system represents an established and proven digital microwave system for multi-agency, multi-jurisdictional, shared use.
- > The approach, methods, and tasks proposed for successful implementation.
- > Responsiveness to the technical specifications.
- > The proposed features, capabilities, and justification for recommendations. The degree to which the proposed system meets or exceeds the specifications.
- > Historical ability of the vendor to provide and install the equipment to meet professional standards and in a responsive and timely manner.
- > The vendor's maintenance, service and support offering, performance, and capabilities. Vendor shall provide the history and qualifications of the service provider.
- > Historical ability of the vendor to provide timely long-term factory support of the system.
- Additional information gathered from clarifying questions and reference checks, vendor presentations and demonstrations, and optional vendor customer on-site visits.
- > The total price of the proposed turnkey solution. The NTIC reserves the right to accept other than the low bid.

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> Consideration of the cost of future system expansion.

Each proposal will be evaluated using the criteria stated in this section. The NTIC is not obligated to accept the proposal with the lowest cost.



EVALUATION FACTORS

The evaluation process will utilize a numerical rating system based on weighted scores in a number of categories. These categories are related to the subsections presented in *Section VI: Proposal Response Format*. In addition to the vendor's written proposal, information gathered in reference checks, vendor presentations, and demonstrations, and optional vendor customer site visits may influence evaluator scores in any category. This rating system assigns points based on the RFP Review Team's evaluation of vendor responses. The evaluation model will allow a maximum of 200 points for each vendor's proposal. A breakdown of evaluation factors and weight is provided in the table below.

Scored Area	Total Category Points	Percentage of Total Points
Experience and Qualifications	10	5%
Executive Summary, Company Overview and Qualifications, Financial Statement, Contract Performance, Company References		
Management, Methodology and Approach	20	10%
Project Organization, Staff references, Management Approach		
Digital Microwave System Design and Implementation Plan	90	45%
Digital microwave system in its totality, Overview, Detail plan, Schedule, Constraints and Concerns. Required infrastructure (tower height, loading requirements, grounding requirements, shelter floor space requirements). Evaluation of all system components and options and how well the system meets the requirements described in this RFP.		
Cost of Services	60	30%
Cost Summary, Explanation, Five Year Cost, Back-up parts, Training, Other		
Upgrade Costs	20	10%
Costs to upgrade the digital microwave system to OC3 capacity at a future date including hardware, firmware, software, dish replacement, additional components, required infrastructure upgrades and frequency re-licensing.		
TOTALS	200	100%

Proposals must meet every Primary Specifications listed in Section V: Deliverables in order to receive 50 points. Inability to meet all Primary Specification will result in a maximum of 10 points for that category. The assignment of points to vendor proposals will apply individual evaluator scores to the weighted model described in the preceding table to arrive at total management and technical points (Sections 1 through 5 of the vendor's proposal) for each qualified vendor proposal. The only exception to this is the cost component of the evaluation, which will be based on mathematical formula described below.

The RFP Review Team reserves the right to call back top bidders for interviews for clarification of their response. The RFP Review team also reserves the right to adjust preliminary scoring based upon that clarification.

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NORTHERN TIER INTEROPERABILITY PROJECT

Digital Microwave System RFP



When the RFP Review Team members have made any final adjustments in their management and technical scores, the cost and technical scores for each vendor will be summed, a total final score for each finalist vendor will be established, and an apparent successful bidder will be named. Identification of the "apparent successful bidder" is procedural only and creates no rights in the named bidder to award of the contract. The apparent successful bidder and competing bidders will be notified of the apparent successful bidder, and the NTIC will proceed into contract negotiations.

October 14, 2005